

American Museum Novitates

PUBLISHED BY THE AMERICAN MUSEUM OF NATURAL HISTORY
CENTRAL PARK WEST AT 79TH STREET, NEW YORK, N. Y. 10024

NUMBER 2409

MARCH 25, 1970

The Bug Genus *Coriplatus* White (Heteroptera, Pentatomidae, Discocephalinae)

BY HERBERT RUCKES¹ AND MIRIAM BECKER²

The genus *Coriplatus* was erected by White in 1842, based on a specimen from Demerara, British Guiana. In 1843 Amyot and Serville proposed *Sachana* as a new name for *Coriplatus* White, the name of which they considered to be preoccupied. Dallas (1851) included *Coriplatus* White near *Sympiezorhincus* Spinola in his key for the genera of the Halydidae. Stål (1867) placed *Coriplatus* close to *Alcippus* Stål in his key for the genera of the Discocephalidae. Stål (1872) gave an appendix to his previous key and related *Coriplatus* to both *Alcippus* Stål and *Eurystethus* Mayr.

The present paper was initiated by the late Dr. Herbert Ruckes and completed by the second author, on the suggestion of Dr. P. Wygodzinsky, of the American Museum of Natural History. All illustrations in the present paper were made by the second author.

The second author had the opportunity to examine a very large series of specimens of both sexes of *Coriplatus depressus* White, from the collections of the Instituto de Zoología Agrícola, Facultad de Agronomía de Maracay, Universidad Central de Venezuela. The material was obtained through the courtesy of Dr. Eduardo Osuna A., to whom she wants to

¹ Research Associate, Department of Entomology, the American Museum of Natural History; Professor Emeritus, the City University of New York; deceased.

² Research Assistant, Conselho Nacional de Pesquisas, in the Museu Rio-Grandense de Ciências Naturais, Pôrto Alegre, Rio Grande do Sul, Brazil.

express her thanks. The specimens from Brazil were sent for study by Dr. P. Wygodzinsky.

The measurements presented herein are the mean and extremes of measurements from five individuals of each sex.

In the descriptions of the genitalia, the morphological terms adopted are those proposed by Dupuis (1955, 1963). The material was studied after being treated with boiling 10 per cent KOH, cleared in phenol, and stained in Congo Red.

CORIPLATUS WHITE

Coriplatus WHITE, 1842, p. 90. DALLAS, 1851, p. 152. STÅL, 1867, p. 500; 1872, p. 10. LETHIERRY AND SEVERIN, 1893, p. 88. KIRKALDY, 1909, p. 219. BARBER AND BRUNER, 1932, p. 246. ALAYO, 1967, p. 5.

Sachana AMYOT AND SERVILLE, 1843, p. 116.

TYPE SPECIES: *Coriplatus depressus* White.

DIAGNOSIS: Head longer than median length of pronotum; antero-lateral margin of pronotum terminating posteriorly in a laterally directed, slightly curved, narrowly triangular spine behind which is a shallow parahumeral sinus; margin of postfrenal scutellar lobe reflexed midway along its length.

GENERIC CHARACTERS: Broadly oval, greatly depressed, very flat beneath, dorsal surface quite uneven.

Head correct, subelliptical, about one-fifth longer than median length of pronotum, anteocular portion about as long as distance between eyes. Eyes subglobular, partially pedunculate, a narrow hiatus between eyes and anterior pronotal margin. Anteocular lobes narrowly ligulate, apically subacute, reaching outer margin of eye. Disc of head concave, margins of jugae feebly ampliate, broadly and weakly reflexed, apex broadly rounded. Clypeus much shorter than jugae, the latter meeting in front of the former, leaving a small notch apically. Antenniferous tubercles visible from above. Antennae long and slender, first antennal segment attaining apex of head, subequal in length to segment V and a little shorter than segments II, III, and IV which are almost equal in length. Bucculae low, subparallel, gradually increasing in height posteriorly and ending more or less abruptly near base of head; buccular groove wide. Labrum subulate, base slightly thickened. Rostrum long, reaching base of seventh abdominal sternite, segment I attaining procoxae, segment II reaching metacoxae and much shorter than segments III and IV combined.

Pronotum transversely subtrapezoidal, more than three times as wide across antehumeral spines as long medially. Anterior margin moderately

excavated centrally, then transversely, feebly sigmoid behind eyes and terminating laterally in an acute spine directed obliquely anteriorly; anterolateral margins somewhat explanate and deeply bisinuate, with two projecting, triangular lobes. Surface of pronotum very uneven, with transverse row of six low, blunt tubercles between humeri and with numerous impressions and ridges over disc; posterolateral and posterior margins very broadly confluent, posterior angle obsolete. Scutellum large, strongly constricted before its middle; postfrenal lobe ampliate, about twice as long as basal lobe, lateral margins reflexed at about their midpoints, apex virtually reaching end of abdomen, subtruncate. Surface of scutellum uneven, base with two large, blunt tubercles with a distinct saddle between them, disc somewhat undulated. Hemelytra reaching apex of abdomen; membrane with longitudinal veins and with two basal cells and almost entirely covered by scutellum. Basal costal margin feebly reflexed and mildly sinuate, external apical angle of corium narrowly and acutely rounded; membranal suture straight. Connexivum widely exposed, posterolateral angles rectilinear and strongly produced, abdominal margin coarsely incised.

Mesosternum mildly tumid bilaterally, with distinct saddle between halves; xyphus broad, its apical margin shallowly emarginate. Metasternum flat, transversely hexagonal, wider than long, metacoxae much farther apart from each other than distant from respective mesocoxae. Mesopleural evaporatorium just bordering posterior margin of sclerite. Metapleural evaporative area more elevated than adjacent areas, attaining lateral margin of sclerite; anterior margin of metapleura elevated, ridgelike; peritreme long, sublanceolate, extending for three-fourths of sclerite, ostiole opening a little behind midlength and continuing in a slightly recurved sulcus. Tibiae bearing long and slender bristles. Abdomen with median furrow long and shallow, reaching base of seventh sternite. Anterior margin of seventh sternite in male hardly produced anteriorly, broadly arcuate, not at all angled, its median length only a little longer than its marginal length.

Male Genitalia: Pygophore subrectangular, conspicuously concave behind parameres. Phallus: phallotheca subcylindrical, narrowly open distally, bearing a pair of protuberant basal processes on dorsal side. Ejaculatory reservoir large. Vesica and conjunctiva devoid of processes.

Female Genitalia: External genitalia of the genital plates type. Sternite VII with posterior border sinuate; apical angles virtually as long as apex of gonocoxites VIII. Gonocoxites VIII very enlarged, their apices surpassing apex of laterotergites VIII. Laterotergites IX not developed, indistinguishable as individualized plates. Laterotergites VIII small in

relation to gonocoxites VIII. Gonapophyses VIII (triangulum) transversely semicircular. Gonocoxites IX and gonapophyses IX constituting a complex area, individual parts impossible to identify. Ectodermal genital ducts: Capsula seminalis of receptaculum seminis globose, with protuberances. Anterior and posterior annular crests scarcely developed.

DISTRIBUTION: Cuba, Venezuela, Colombia, British Guiana, French Guiana, Brazil.

REMARKS: This is a monotypic genus and has been reported mainly from the northern part of South America, although it has been found also in Nova Teutônia, southern Brazil.

The genus *Coriplatus* White is closely allied to both *Abascantus* Stål and *Pelidnocoris* Stål. The morphological characters shared by these three genera are the following: body strongly depressed; metasternum broadly hexagonal which causes the metacoxae to be placed much farther apart from each other than they are distant from the respective mesocoxae; presence of acute spine on anterolateral margins of pronotum behind humerus; long scutellum which reaches apex of abdomen and is strongly constricted about midlength; widely exposed serrate connexivum, and external female genitalia with gonocoxites VIII much enlarged. *Coriplatus* White can be separated from both *Abascantus* Stål and *Pelidnocoris* Stål by the medially reflexed margins of the postfrenal scutellar lobe and by the presence of six blunt transhumeral tubercles. It can be easily separated from *Abascantus* Stål by its five-segmented antennae and by the presence of an anteocular spiniform lobe. *Coriplatus* is distinguished from *Pelidnocoris* Stål mainly by its head which is conspicuously longer than median length of pronotum, by its emarginate xyphus, and by the tibiae which are covered by long hairlike setae.

Coriplatus depressus White

Figures 1-7.

Coriplatus depressus WHITE, 1842, p. 90, pl. 7, figure 3. DALLAS, 1851, p. 160. STÅL, 1867, p. 500; 1872, p. 10. LETHIERRY AND SEVERIN, 1893, p. 88. KIRKALDY, 1909, p. 219. BARBER AND BRUNER, 1932, p. 249. ALAYO, 1967, p. 9.

Sachana depressa AMYOT AND SERVILE, 1843, p. 116.

Ivory yellow, dorsal surface uneven, overlaid with irregularly distributed fuscous and ferruginous punctures, many arranged in clusters and thus producing an over-all mottled brownish appearance; sometimes with sanguineous blotches on femora-tibial articulation, more rarely on pronotum and on disc of head. Body surface covered with short, erect setae.

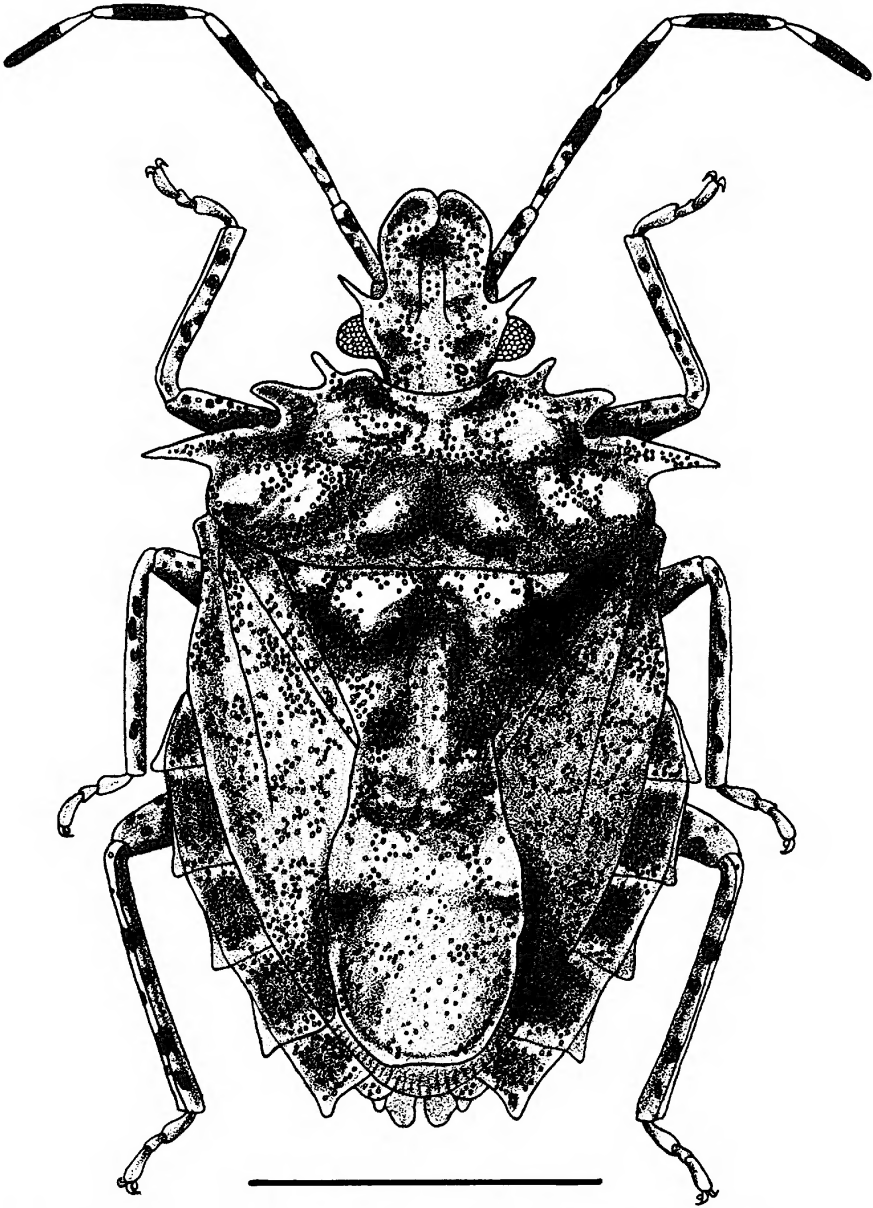


FIG. 1. *Coriplatus depressus* White, female. Dorsal view. (Scale equals 5 mm.)

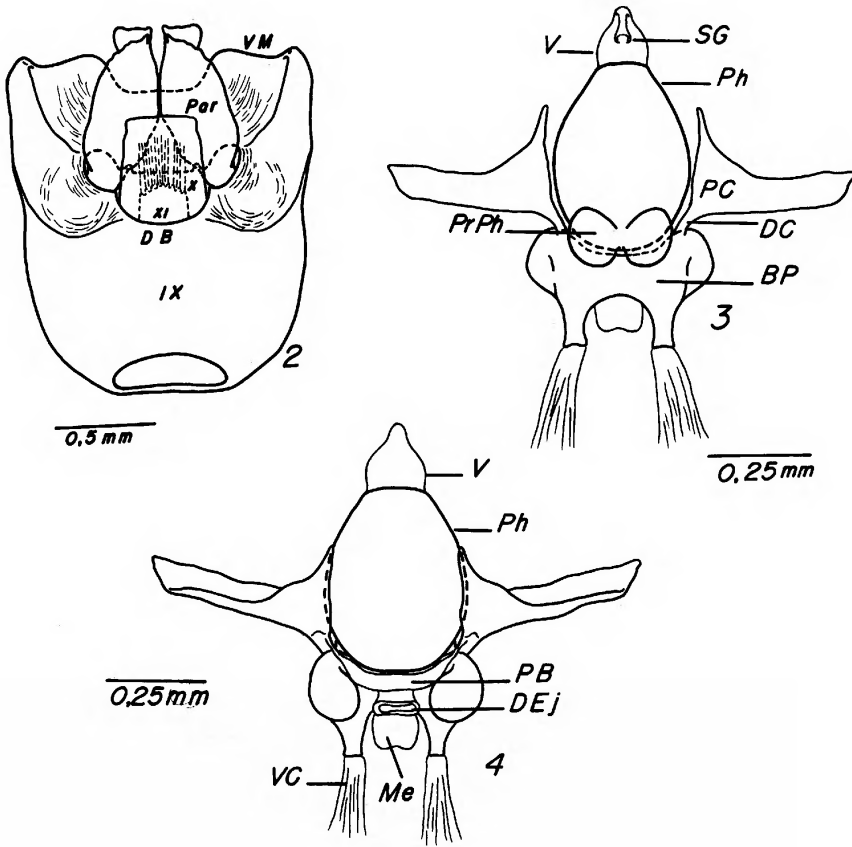
MALE: Body widest across third abdominal segment, 6.5 mm. (6.0–7.4) and across antehumeral pronotal spines, 6.63 mm. (6.1–7.1). Total

body length, 10.24 mm. (9.8–11.2).

Head less punctured than remaining parts of dorsal surface of body; surface uneven. Total length of head, 2.53 mm. (2.45–2.7); width across median portion of eyes, 2.4 mm. (2.3–2.6); length of antecular part of head, 1.63 mm. (1.5–1.85); width across midlength of jugae, 1.46 mm. (1.3–1.7); interocular distance, 0.53 mm. (0.5–0.6); space separating ocellus from eye, 0.42 mm. (0.4–0.45). Antennal segment I mottled with black especially on ventral surface, segment II both on dorsal and ventral surfaces; III with a wide median black band; IV black except basally and on a narrow area apically; V black on the two apical thirds. Length of antennal segments: I, 1.07 mm. (0.95–1.2); II, 1.38 mm. (1.3–1.5); III, 1.34 mm. (1.15–1.6); IV, 1.36 mm. (1.2–1.6); V, 1.24 mm. (1.1–1.4). Head ventrally with impunctate areas along genae. Length of rostral segments: I, 1.64 mm. (1.5–1.7); II, 2.36 mm. (2.1–2.7); III, 1.64 mm. (1.5–1.8); IV, 1.46 mm. (1.4–1.5).

Surface of pronotum very uneven, with subapical depressed band behind head limited by bilateral row of closely set fuscous punctures; bilaterally tumid ectad of calli on area adjacent to two anterolateral marginal lobes of pronotum. Transhumeral tubercles small, but distinct. Lateral lobes of margin of pronotum progressively larger and wider toward behind. Anterior lobe similar to antecular one, but smaller; median lobe subequilaterally triangular; antehumeral lobe pointed, laterally directed, anterior and posterior margins straight. Length of pronotum along midline, 2.0 mm. (1.9–2.1); width across humeri, 5.31 mm. (4.9–5.9). Surface of scutellum undulated, with tumescences on basal angles ectad of basal tubercles and on basal area of postfrenal lobe; punctures coarser and darker on parafrenal lobe, with row of closely set punctures on lateral margins of scutellum extending to basal fourth of postfrenal lobe. Total length of scutellum, 5.56 mm. (5.1–6.1); basal width, 3.46 mm. (3.2–3.8); length of postfrenal lobe, 3.6 mm. (3.3–3.9); postfrenal width across reflexed marginal areas, 2.24 mm. (2.1–2.3). Corium of hemelytra with clusters of coarser, darker, more closely set punctures on basal area of exocorium and on mesocorium near clavus; apical third of corium with numerous closely set minute punctures; external apical angle of corium attaining apex of sixth abdominal sternite. Connexival segments slightly concave and irregularly punctured.

Ventral side of body much less punctured than dorsal surface, quite even. Sternum impunctate. Propleura and mesopleura moderately punctate; posterolateral area of metapleura adjacent to evaporative area piceous and shining. Anterior femora with ferruginous and black dots more numerous on dorsal surface; median and posterior femora with

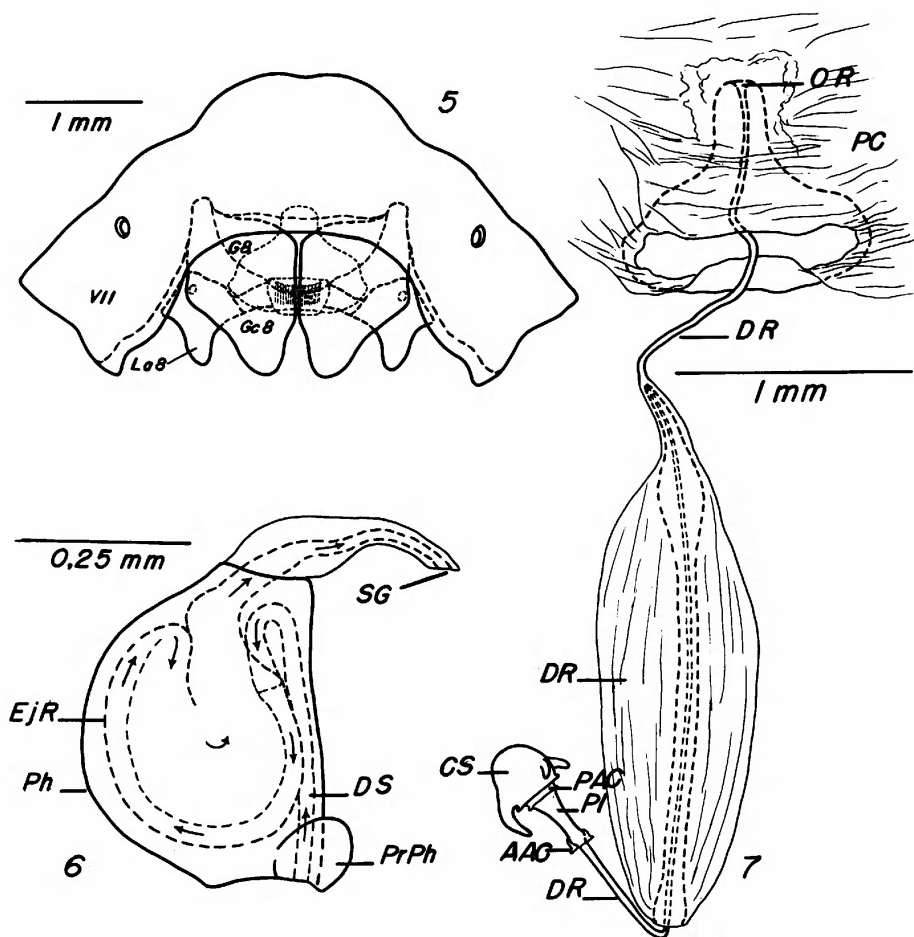


FIGS. 2-4. *Coriplatus depressus* White. 2. Pygophore, dorsal aspect. 3. Phallus, dorsal aspect. 4. Phallus, ventral view.

Abbreviations: BP, basal plates; DB, dorsal border of pygophore; DC, dorsal connective; DEj, ductus ejaculatorius; Me, Membranula; Par, paramere; PB, ponticulus basilaris; PC, processus capitati; Ph, phallosome; PrPh, processus phallosome; SG, secondary gonopore; V, vesica; VC, ventral connective; VM, ventral margin of pygophore; IX, ninth abdominal segment; X, tenth abdominal segment = anal tube; XI, eleventh abdominal segment = anus.

irregular anteapical fuscous spot on ventral surface. Tibiae with a row of elliptical dots on posterior surface on each side of depressed longitudinal area. Middle third of abdominal disc impunctate, lateral thirds of abdomen with moderately numerous ferruginous dots.

Male Genitalia: Dorsal border of pygophore semicircularly emarginate in front of tenth segment, lateral thirds surrounding base of parameres; ventral margin with sharp ridge, widely excavated at middle third.



FIGS. 5-7. *Coriplatus depressus* White. 5. Female external genitalia, ventral aspect. 6. Phallus, ductus seminis and Aussenwand, lateral aspect. 7. Female, ectodermal genital ducts.

Abbreviations: AAC, anterior annular crest; CS, capsula seminalis; DR, ductus receptaculi; DS, ductus seminis; EjR, ejaculatory reservoir; G 8, gonapophyses VIII; Gc 8, gonocoxites VIII; La 8, laterotergites VIII; OR, orificium receptaculi; PAC, posterior annular crest; PC, pars communis; Ph, phallosome; PI, pars intermedialis; PrPh, processus phallosomae; SG, secondary gonopore; V, vesica; VII, seventh sternite.

Dorsum of pygophore with bilateral concave area beginning at each side of base of anal tube and continuing toward lateral apical angles. Tenth segment depressed, subcylindrical; anus bearing long setae. Para-

meres long, irregularly recurved, ventral surface flattish at apex, subapical inner margins contiguous behind tenth segment (fig. 2). Phallus: basal plates of articulatory apparatus globosely recurved ventrally. Dorsal connectives short; processus capitati shovel-shaped, wider than phallotheca (figs. 3, 4). Phallotheca ventrally inflated; course of ductus seminis as shown in figure 6. Vesica tubular, tapering toward secondary gonopore (fig. 6).

FEMALE: Similar to male, but larger (fig. 1).

Total body length, 11.28 mm. (10.8–11.8); width across third abdominal segment, 7.25 mm. (6.9–7.45); width across antehumeral pronotal lobes, 7.54 mm. (6.9–7.8). Head: total length, 2.76 mm. (2.6–2.85); width across median portion of eyes, 2.6 mm. (2.5–2.7); antecular length, 1.8 mm. (1.7–1.9); width of jugae, 1.46 mm. (1.4–1.55); interocular distance, 0.5 mm. (0.4–0.6); distance between ocellus and eye, 0.49 mm. (0.45–0.5); length of antennal segments: I, 1.18 mm. (1.1–1.2); II, 1.5 mm. (1.35–1.7); III, 1.45 mm. (1.4–1.55); IV, 1.48 mm. (1.4–1.6); V, 1.35 mm. (1.3–1.4); length of rostral segments: I, 1.7 mm. (1.6–1.8); II, 2.49 mm. (2.3–2.7); III, 1.75 mm. (1.6–1.8); IV, 1.46 mm. (1.3–1.6). Pronotum: total length, 2.24 mm. (2.1–2.4); transhumeral width, 5.88 mm. (5.5–6.1); scutellum: total length, 6.3 mm. (5.7–6.7); basal width, 3.9 mm. (3.6–4.0); postfrenal length, 4.01 mm. (3.6–4.35); postfrenal width across reflexed areas, 2.62 mm. (2.5–2.7).

Female Genitalia: Sutural borders of gonocoxites VIII adjacent to each other along basal two-thirds, corresponding to area which covers segment X, apical third of gonocoxites VIII divergent, posterior borders obliquely directed inwards, sutural angles roundly acute. Lateroexternal borders covering spiracles VIII. Laterotergites VIII subtriangular at apex (fig. 5). Complex gonocoxites IX-gonapophyses IX, including dorsal wall of pars communis and thickenings of vaginal intima, constituting a basally open campanulate piece. Ectodermal genital ducts: orificium receptaculi opening at distal portion of campanulate piece, where there are bladelike thickenings of vaginal intima both on ventral and dorsal sides. Capsula seminalis with three protuberances of different lengths, longest one attaining half the length of pars intermedialis, smallest one scarcely reaching posterior annular crest. Pars intermedialis narrowing toward ductus receptaculi (fig. 7).

TYPE LOCALITY: British Guiana (Demerara).

Type deposited originally in British Museum, but now apparently lost.

DISTRIBUTION: The same as for the genus.

SPECIMENS STUDIED: La Urbina, El Consejo, Aragua, Venezuela, 500

meters, October 26, 1951 (H. E. Box), 17 males and 29 females, in the Instituto de Zoología Agrícola; Cagua, Aragua, Venezuela, 450 meters, April 17, 1951 (Suárez), seven males and six females, in the Museu Rio-Grandense de Ciências Naturais; *ibid.*, April 6, 1951 (M. Suárez), five males and six females, in the Museu Rio-Grandense de Ciências Naturais; *ibid.*, March 4, 1951 (M. Suárez), one female, in the Instituto de Zoología Agrícola; Belém, Pará, Brazil, November 10–22, 1963 (Oliveira and Wygodzinsky), one female, in the American Museum of Natural History; Nova Teutônia, Brazil, latitude 27° 11' 8 S., longitude 52° 23' 1 N. 300–500 meters, March 11, 1959 (Plaumann), one male and one female, May 3, 1959, one male and two females, April 15, 1959, three males and one female, in the American Museum of Natural History.

BIBLIOGRAPHY

ALAYO, D.

1967. Catálogo de la fauna de Cuba. XVIII. Los Hemípteros de Cuba-II. Familia Pentatomidae. Museo "Felipe Poey", Ac. C. Cuba, no. 43, pp. 1–43, 9 pls.

AMYOT, C. J. B., AND J. G. AUDINET-SERVILLE

1843. Histoire naturelle des insectes (Hémiptères). Paris, lxxvi+681 pp., 12 pls.

BARBER, H. G., AND S. C. BRUNER

1932. The Cydnidae and Pentatomidae of Cuba. Jour. Dept. Agr. Puerto Rico, vol. 16, no. 3, pp. 231–285, pls. 25–26, 15 figs.

DALLAS, W. S.

1851. List of the specimens of hemipterous insects in the British Museum. London, pt. 1, pp. 1–368, 11 pls.

DUPUIS, C.

1955. Les génitalia des Hémiptères Hétéroptères. (Génitalia externes des deux sexes; voies ectodermiques femelles). Revue de la morphologie. Index bibliographique analytique. Mém. Mus. Hist. Nat., Paris, n.s., ser. A, Zool., vol. 6, no. 4, pp. 183–278, 17 figs.

1963. Progrès récents de l'étude des génitalia des Hétéroptères (Étude bibliographique critique). Thèse à Faculté de Sciences de l'Université. Paris, 100 pp., Mus. Natl. Hist. Nat. Paris, ed.

KIRKALDY, G. W.

1909. Catalogue of the Hemiptera (Heteroptera). Felix L. Dames, ed., Berlin, vol. 1, Cimicidae, xl+392 pp.

LETHIERRY, L., AND G. SEVERIN

1893. Catalogue général des Hémiptères. Brussels, vol. 1, 286 pp.

STÅL, C.

1867. Bidrag till Hemipterernas Systematik. Öfvers. Vetensk. Akad. Förh., Stockholm, vol. 24, no. 7, pp. 491–560.

1872. Enumeratio Hemipterorum. II. K. Svenska Vetensk. Akad. Handl., vol. 10, no. 4, pp. 1–159.

WHITE, A.

1842. Descriptions of some hemipterous insects of the section Heteroptera.
Trans. Ent. Soc. London, vol. 3, pp. 84-94, pl. 7, 7 figs.

